

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P299446

Luminaire Tested: **GLNA-AF-09-LED-E1-SLR-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299446
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194679)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-SLR-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37657 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

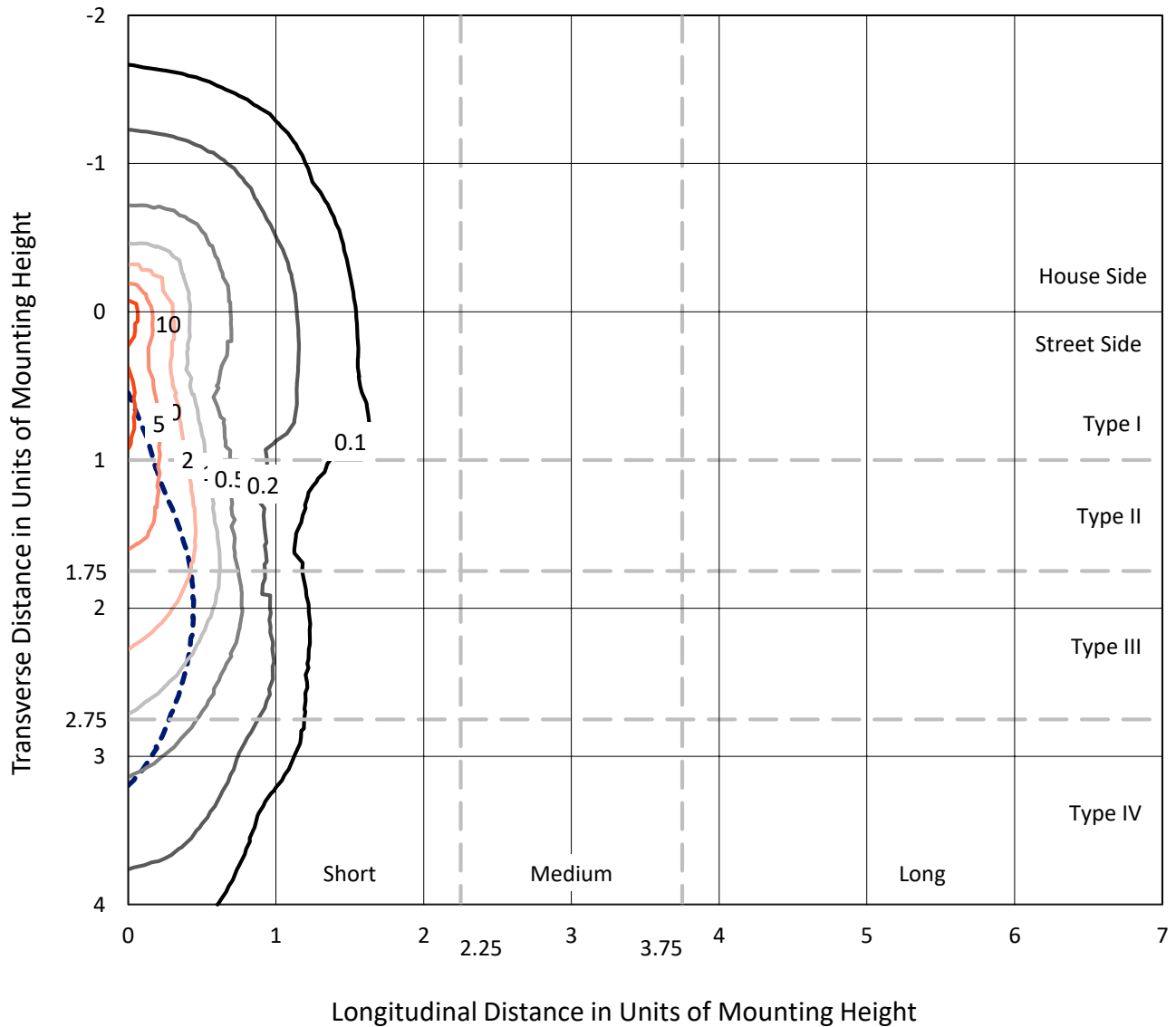
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

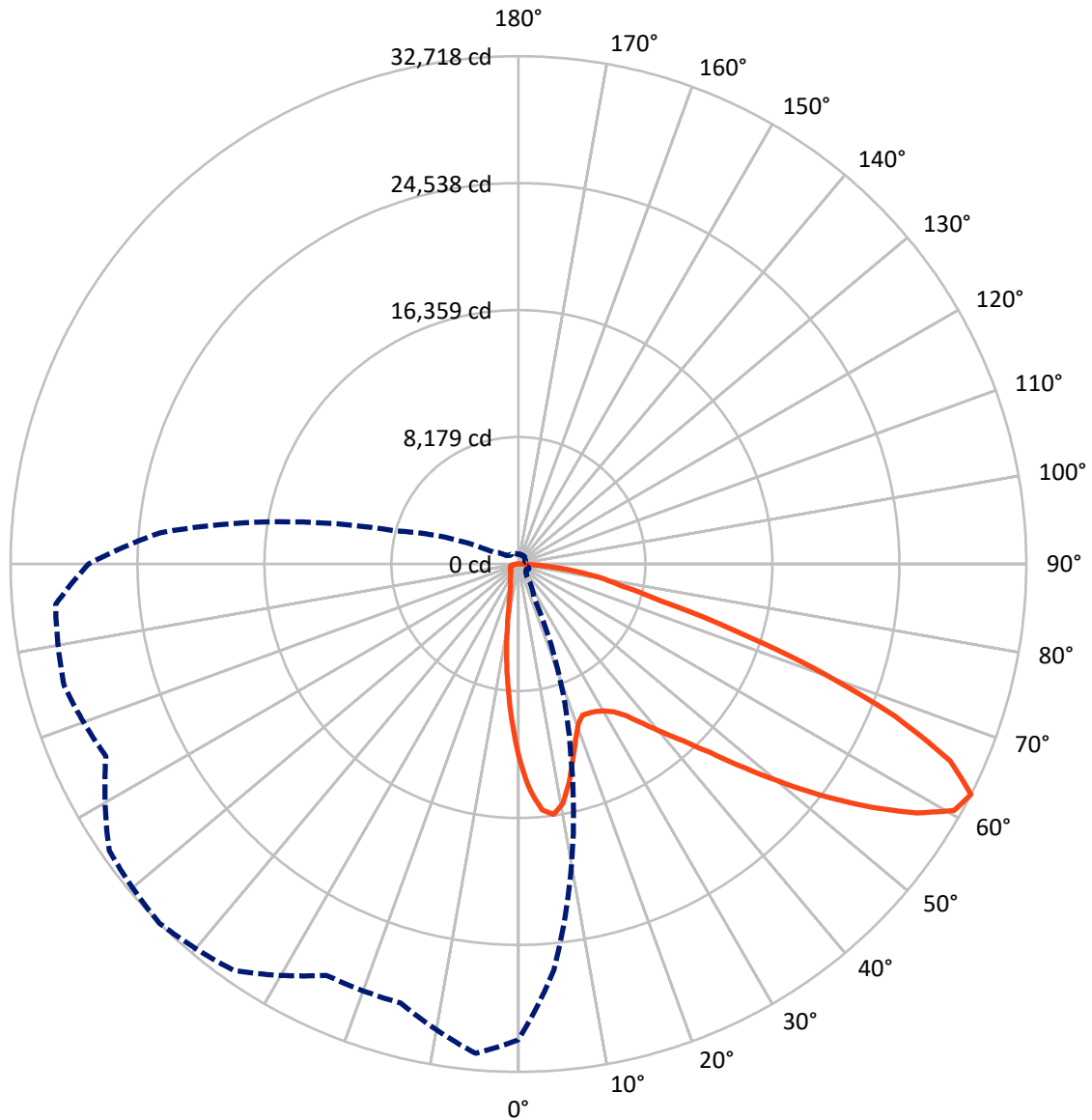
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6231.8	0.0	6231.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	31425.3	0.0	31425.3
	% Fixture	83.5	0.0	83.5
Total	Lumens	37657.0	0.0	37657.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	926.1	2.5
10°-20°	1698.3	4.5
20°-30°	2476.1	6.6
30°-40°	3813.6	10.1
40°-50°	5612.6	14.9
50°-60°	8232.5	21.9
60°-70°	9202.7	24.4
70°-80°	4505.5	12.0
80°-90°	1189.6	3.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	37657.0	100.0
0°-180°	37657.0	100.0



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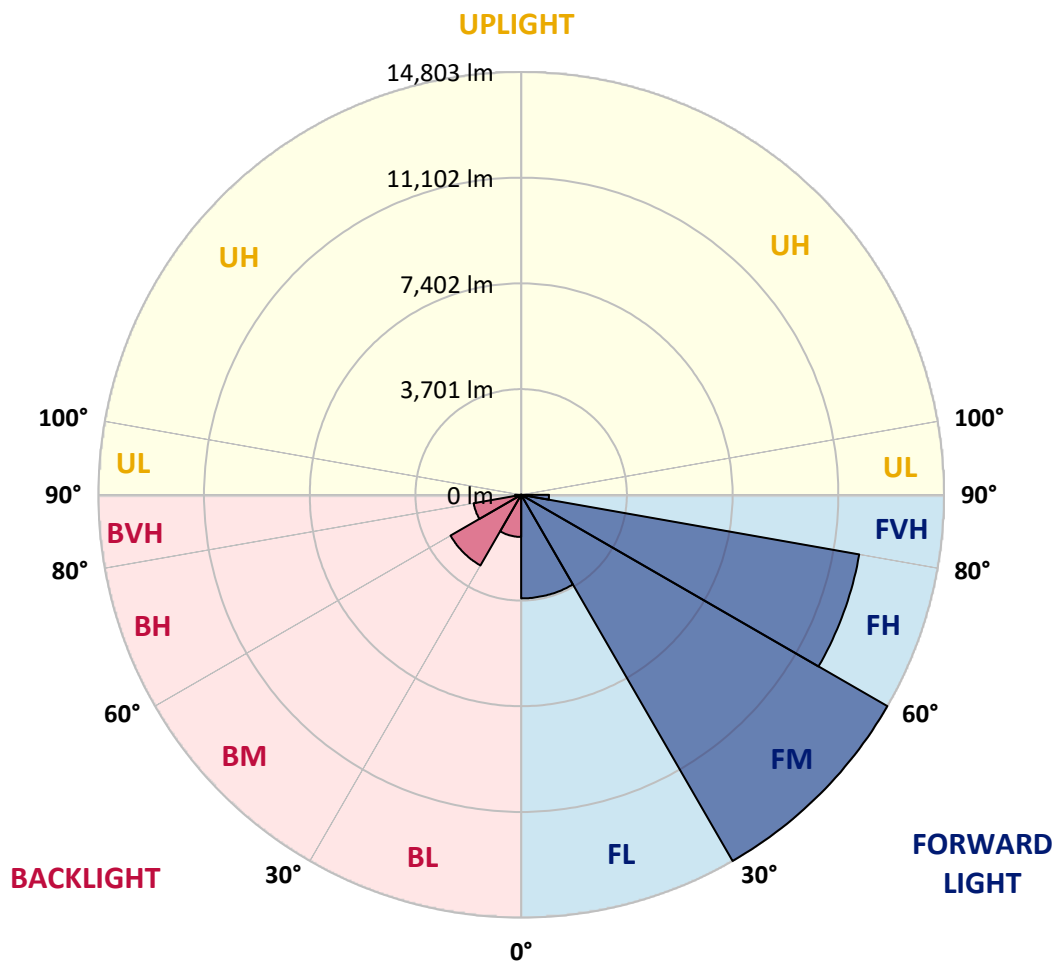
CATALOG NUMBER: GLNA-AF-09-LED-E1-SLR-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3626.2	9.6			
FM	(30°-60°)	14803.3	39.3			
FH	(60°-80°)	12018.8	31.9			G5
FVH	(80°-90°)	976.9	2.6			G5
BL	(0°-30°)	1474.3	3.9	B3/2500		
BM	(30°-60°)	2855.3	7.6	B3/5000		
BH	(60°-80°)	1689.4	4.5	B3/2500		G3/2500
BVH	(80°-90°)	212.7	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8
2.5°	13219.1	12950.3	12502.8	12037.2	11754.0	11422.4	11163.6	10936.1	10480.5	10391.6	10472.4
5°	12430.8	11890.6	11047.7	10199.2	9633.9	9027.3	8555.4	8176.9	7599.1	7497.6	7619.8
7.5°	11166.1	10520.0	9406.4	8323.5	7524.5	6766.9	6258.0	5851.9	5400.7	5206.4	5218.3
10°	10075.1	9346.3	8029.6	6852.1	6197.8	5686.5	5257.8	4841.7	4384.2	4084.1	4001.3
12.5°	9464.1	8626.2	7108.4	6056.8	5450.2	4912.5	4450.7	4005.7	3516.9	3210.5	3124.0
15°	9358.8	8447.6	6763.1	5548.0	4787.8	4107.2	3562.7	3065.7	2562.5	2314.3	2262.3
17.5°	9816.3	8766.6	6650.9	5094.3	4164.9	3324.5	2655.9	2101.2	1691.4	1567.3	1556.7
20°	10693.6	9379.5	6636.5	4668.1	3550.1	2565.0	1850.6	1447.0	1267.1	1231.4	1233.9
22.5°	11925.7	10329.5	6814.5	4347.3	2984.9	1912.6	1391.2	1210.7	1140.6	1107.3	1107.3
25°	13519.3	11638.0	7224.3	4113.5	2494.2	1527.8	1227.7	1119.9	1053.4	1030.9	1035.3
27.5°	15064.1	12910.8	7700.6	3929.3	2173.3	1386.8	1163.1	1066.0	1008.3	985.1	995.8
30°	16268.5	14041.3	8097.9	3678.6	2009.8	1347.4	1186.3	1086.7	1003.9	968.8	970.7
32.5°	17266.2	15030.8	8431.3	3498.1	1865.0	1155.0	1022.7	978.9	968.8	927.5	906.8
35°	18541.5	16109.4	8655.0	3502.5	1796.7	1030.9	910.6	834.1	778.3	730.7	730.7
37.5°	20036.1	17347.0	8893.2	3550.1	1772.2	958.2	871.7	794.6	743.2	697.5	689.3
40°	21513.8	18560.3	9110.6	3595.9	1757.2	914.9	840.4	770.2	722.6	676.8	664.3
42.5°	22770.9	19558.0	9304.9	3618.4	1707.7	910.6	817.8	753.3	708.1	658.0	646.1
45°	23700.3	20393.9	9514.2	3653.5	1658.2	927.5	817.8	751.4	695.6	648.0	635.5
47.5°	24530.0	21375.3	9863.9	3653.5	1598.0	896.1	844.8	753.3	693.7	643.6	633.6
50°	25641.7	22720.8	10526.3	3568.9	1513.4	862.9	889.9	745.1	674.9	635.5	622.9
52.5°	27173.3	24445.4	11577.9	3421.7	1383.1	799.0	883.6	741.4	656.1	614.8	600.4
55°	28985.1	26291.6	12724.7	3249.9	1188.2	753.3	852.9	730.7	635.5	589.7	575.3
57.5°	30398.8	27562.5	13531.8	2984.9	1018.4	728.8	755.8	720.7	610.4	562.8	550.8
60°	30961.6	27513.0	13753.7	2630.8	935.6	708.1	660.5	607.2	589.7	542.1	527.7
62.5°	30657.7	26242.1	13132.6	2382.6	916.8	681.2	619.2	747.0	573.4	527.7	507.0
65°	29252.0	23989.8	11487.0	2316.2	970.7	654.3	592.2	585.9	550.8	507.0	486.3
67.5°	26190.1	20623.9	9197.1	2322.5	1039.0	627.3	565.3	536.4	519.5	484.4	465.6
70°	21332.1	16306.1	6855.8	2339.4	1074.1	596.0	536.4	505.1	486.3	451.2	438.7
72.5°	15685.1	12567.4	4980.8	2231.6	1080.4	560.9	497.0	470.0	451.2	414.2	403.6
75°	10731.2	9613.2	3454.9	1848.7	941.9	511.4	453.1	428.6	416.1	370.4	364.1
77.5°	7839.1	7216.2	2210.9	1372.4	726.3	449.3	399.8	381.0	372.9	322.7	314.6
80°	6291.2	5709.0	1383.1	940.0	532.0	376.6	335.3	325.2	316.5	267.0	260.7
82.5°	4363.6	3823.4	888.0	610.4	399.8	292.0	265.1	260.7	248.2	203.0	196.8
85°	2301.8	2076.2	562.8	416.1	289.5	200.5	184.2	184.2	178.0	134.7	130.3
87.5°	293.9	478.2	285.8	217.5	159.2	89.0	89.0	87.1	93.4	76.5	66.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8
2.5°	10281.9	10381.5	10286.3	10292.5	10397.8	10712.4	10855.3	10973.1	11099.7	11182.4	11219.4
5°	7452.4	7684.3	7762.6	7928.1	8172.5	8574.2	8733.4	8849.3	8926.4	8971.5	8990.3
7.5°	5096.8	5237.1	5394.4	5661.4	6193.4	6429.7	6535.0	6508.0	6421.6	6390.2	6359.5
10°	3842.2	3786.4	3756.9	3904.2	4334.7	4572.9	4647.4	4574.7	4527.1	4537.8	4589.2
12.5°	2976.7	2879.6	2761.8	2744.8	3028.7	3241.8	3289.4	3293.2	3380.3	3456.8	3570.8
15°	2169.6	2158.9	2101.2	2066.2	2227.2	2401.4	2422.1	2459.1	2538.0	2593.8	2692.8
17.5°	1529.7	1585.5	1631.2	1653.8	1776.0	1900.1	1877.5	1858.7	1844.3	1844.3	1891.9
20°	1233.9	1270.9	1329.2	1395.0	1519.7	1606.2	1550.4	1475.8	1421.9	1405.6	1411.9
22.5°	1111.7	1140.6	1173.8	1231.4	1343.6	1403.8	1343.6	1289.7	1235.8	1217.0	1210.7
25°	1049.7	1086.7	1118.0	1161.2	1244.0	1285.3	1227.7	1188.2	1155.0	1132.4	1115.5
27.5°	1014.6	1047.2	1056.0	1076.6	1146.8	1183.8	1155.0	1138.7	1118.0	1097.3	1076.6
30°	977.0	970.7	956.3	958.2	1014.6	1051.6	1049.7	1053.4	1051.6	1045.3	1041.5
32.5°	892.4	879.9	867.3	879.9	931.2	964.5	967.0	975.1	975.1	973.2	989.5
35°	743.2	765.8	780.2	817.8	879.9	908.7	896.1	875.5	838.5	815.3	813.4
37.5°	687.5	691.2	716.3	767.7	836.6	862.9	844.8	797.1	772.1	767.7	773.9
40°	660.5	664.3	678.7	726.3	794.6	821.6	805.3	770.2	747.0	745.1	755.8
42.5°	641.7	646.1	654.3	687.5	743.2	776.5	778.3	753.3	726.3	728.8	738.9
45°	631.1	633.6	631.1	648.0	699.4	738.9	755.8	738.9	716.3	720.7	732.6
47.5°	629.2	622.9	614.8	619.2	673.1	711.9	732.6	726.3	716.3	720.7	730.7
50°	621.0	606.6	596.0	594.1	648.0	689.3	708.1	708.1	711.9	720.7	730.7
52.5°	596.0	579.7	579.7	573.4	631.1	670.5	683.1	685.0	691.2	705.6	720.7
55°	565.3	559.0	565.3	554.6	619.2	656.1	662.4	666.8	670.5	683.1	703.8
57.5°	538.3	530.2	544.6	540.2	608.5	641.7	641.7	649.9	649.9	666.8	683.1
60°	523.9	507.0	513.2	517.6	594.1	629.2	625.4	633.6	637.3	652.4	664.3
62.5°	505.1	490.7	490.7	500.7	577.8	610.4	608.5	614.8	631.1	635.5	648.0
65°	482.5	476.3	470.0	482.5	560.9	589.7	592.2	600.4	614.8	619.2	629.2
67.5°	459.4	461.9	449.3	461.9	546.5	569.0	569.0	585.9	592.2	600.4	610.4
70°	434.9	436.8	426.1	441.2	536.4	546.5	544.6	567.1	571.5	577.8	587.8
72.5°	403.6	403.6	399.8	420.5	519.5	523.9	519.5	538.3	540.2	546.5	550.8
75°	370.4	370.4	366.6	395.4	509.5	498.8	486.3	500.7	505.1	509.5	509.5
77.5°	327.1	331.5	331.5	366.6	473.8	488.8	446.8	455.6	461.9	463.7	457.5
80°	273.2	283.9	287.6	333.4	397.3	451.2	399.8	405.5	408.0	408.0	399.8
82.5°	209.3	227.5	238.1	287.6	304.6	378.5	347.8	354.1	347.8	335.3	331.5
85°	144.8	169.8	182.4	219.3	230.0	292.0	289.5	289.5	277.6	260.7	258.8
87.5°	79.0	93.4	101.5	130.3	157.3	196.8	213.1	206.8	196.8	186.1	188.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8
2.5°	11414.3	11695.7	12145.0	12488.4	12834.3	13167.7	13528.1	13803.2	14036.9	14128.4	14405.4
5°	9178.9	9530.5	9954.8	10720.6	11263.3	11861.1	12553.0	13467.9	13819.5	14306.4	15102.9
7.5°	6489.9	6808.2	7491.3	8110.5	8878.8	9725.4	10658.5	11921.3	12383.1	13163.4	14461.2
10°	4846.1	5216.5	5764.8	6286.8	6963.6	7829.1	8901.3	10313.2	10874.1	11720.7	13215.4
12.5°	3904.2	4341.0	4922.5	5413.2	5937.1	6547.5	7589.1	9137.0	9889.0	10629.7	12140.6
15°	2999.3	3456.8	3997.6	4620.5	5197.7	5856.3	6947.3	8640.6	9505.4	10278.1	11567.2
17.5°	2076.2	2467.2	3148.4	3798.3	4537.8	5380.0	6769.4	8745.9	9778.7	10669.2	11666.8
20°	1472.1	1695.2	2254.2	3008.0	3929.3	4986.5	6736.2	9300.5	10644.1	11660.6	12304.2
22.5°	1237.7	1320.4	1645.7	2336.9	3401.0	4692.6	6852.1	10078.8	11811.6	13109.5	13320.6
25°	1128.0	1178.2	1347.4	1834.3	2931.0	4479.5	7243.1	11238.2	13256.7	14559.0	14521.4
27.5°	1067.9	1119.9	1231.4	1548.5	2577.5	4347.3	7634.2	12613.1	14908.6	16131.9	15668.2
30°	1049.7	1119.9	1237.7	1459.5	2325.0	4137.9	7955.0	13819.5	16179.5	17194.1	16190.2
32.5°	1035.3	1045.3	1099.2	1258.4	2084.3	3893.5	8172.5	14902.4	17423.5	18204.3	16941.6
35°	836.6	888.0	975.1	1128.0	1944.0	3746.9	8172.5	15836.1	18649.3	19224.6	17657.9
37.5°	805.3	851.0	927.5	1057.8	1865.0	3674.2	8008.9	16736.7	19901.4	20382.0	18247.6
40°	789.0	826.0	898.7	1003.9	1831.8	3591.5	7770.8	17531.3	21124.7	21540.8	18798.4
42.5°	776.5	809.7	878.0	970.7	1788.5	3500.6	7578.4	18168.6	22186.9	22530.3	19324.2
45°	770.2	805.3	879.9	987.6	1701.4	3380.3	7514.5	18858.0	23060.5	23356.3	19893.2
47.5°	770.2	811.5	889.9	1022.7	1598.0	3256.2	7715.0	19767.3	23886.4	24031.2	20563.8
50°	763.9	809.7	919.3	987.6	1447.0	3098.9	8186.9	20911.6	24780.7	24797.0	21412.9
52.5°	751.4	805.3	989.5	967.0	1272.8	2892.1	8824.9	22381.8	26103.6	26202.6	22741.5
55°	737.0	799.0	970.7	919.3	1130.5	2645.8	9346.3	24167.8	27962.3	28237.4	24696.1
57.5°	718.2	790.9	940.0	852.9	1037.2	2328.7	9534.9	25476.3	29260.2	29951.4	26898.2
60°	701.9	784.6	848.5	813.4	978.9	2061.8	9170.2	25217.5	29171.2	30661.4	28850.3
62.5°	685.0	790.9	773.9	789.0	951.9	1890.1	8218.2	23145.1	27695.4	29928.8	30297.3
65°	666.8	735.1	730.7	767.7	946.3	1821.8	6812.6	20038.0	24842.7	27612.6	30638.9
67.5°	641.7	678.7	699.4	741.4	967.0	1761.6	5497.8	16529.2	20878.4	24140.9	28858.5
70°	614.8	646.1	668.7	708.1	954.4	1734.6	4572.9	13034.9	16566.8	19785.4	25346.0
72.5°	579.7	606.6	627.3	664.3	941.9	1720.2	3862.8	10497.5	12368.7	14697.5	20607.6
75°	538.3	562.8	577.8	614.8	902.4	1575.5	3036.9	8882.5	9255.4	10224.2	16413.3
77.5°	490.7	509.5	521.4	562.8	799.0	1310.4	2196.5	6852.1	7187.4	7423.0	12583.7
80°	434.9	453.1	459.4	498.8	662.4	1024.6	1432.6	5061.0	5375.6	5429.5	8218.2
82.5°	370.4	389.2	389.2	426.1	542.1	737.0	940.0	3467.4	3529.4	3711.8	5808.7
85°	298.3	312.7	312.7	331.5	420.5	550.8	646.1	1740.9	1722.1	1966.5	5032.2
87.5°	213.1	223.7	233.8	238.1	300.2	364.1	389.2	530.2	349.7	401.7	3231.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: GLNA-AF-09-LED-E1-SLR-800

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8	12722.8
2.5°	14614.7	14732.5	14612.2	14525.7	14151.0	13842.7	13430.3	13219.1
5°	15709.5	16009.7	15908.2	15544.1	14761.4	13881.5	12882.0	12430.8
7.5°	15577.3	16274.8	16291.1	15610.5	14457.4	13161.5	11807.8	11166.1
10°	14546.4	15438.2	15693.2	15032.7	13809.5	12360.6	10807.7	10075.1
12.5°	13395.2	14268.8	14463.7	14235.6	13213.5	11757.7	10182.9	9464.1
15°	12453.3	12845.0	13076.2	13275.5	12702.1	11517.7	10147.2	9358.8
17.5°	11879.9	11836.7	11903.1	12248.4	12345.5	11792.8	10685.5	9816.3
20°	11673.1	11008.8	10991.9	11468.2	12178.2	12449.6	11737.0	10693.6
22.5°	11787.2	10710.5	10573.9	11139.2	12267.2	13395.2	13115.7	11925.7
25°	12180.1	10735.6	10625.3	11172.4	12589.9	14403.5	14604.1	13519.3
27.5°	12799.3	10892.9	10747.5	11309.0	13018.6	15250.2	16069.9	15064.1
30°	13387.1	11166.1	10985.6	11577.9	13409.6	15585.5	16968.5	16268.5
32.5°	14101.5	11677.5	11360.4	12072.3	13894.1	16119.4	17769.4	17266.2
35°	14800.9	12405.7	12012.8	12836.2	14434.3	16784.3	18684.4	18541.5
37.5°	15569.2	13358.2	13033.0	13823.9	15173.7	17411.0	19851.9	20036.1
40°	16388.9	14621.0	14235.6	15264.6	16320.5	18198.1	21071.4	21513.8
42.5°	17214.8	16022.3	15562.9	16605.7	17580.8	18973.9	22114.2	22770.9
45°	18160.5	17543.8	17326.4	18454.4	18792.2	19713.4	22884.4	23700.3
47.5°	19262.2	19270.3	19620.0	20071.2	20013.6	20549.4	23658.9	24530.0
50°	20547.5	21424.8	22197.5	22497.1	21271.9	21448.0	24733.1	25641.7
52.5°	22091.6	24002.4	24958.7	24761.9	22628.1	22544.7	26434.5	27173.3
55°	24023.0	26730.9	27681.0	27539.9	24186.6	24039.3	28554.5	28985.1
57.5°	26258.4	29374.2	30247.8	29614.2	26057.9	25679.3	30308.0	30398.8
60°	28223.0	31469.2	32235.0	31533.1	27946.0	27424.0	31402.8	30961.6
62.5°	29316.0	32179.2	32717.6	31961.8	29239.5	29282.7	31642.8	30657.7
65°	28827.8	30384.4	30558.0	30496.0	28906.1	30361.2	30779.9	29252.0
67.5°	26153.1	25846.7	26138.7	26542.3	26049.7	28941.2	28388.5	26190.1
70°	21441.8	19758.5	20340.7	20611.4	20835.1	24904.8	24639.7	21332.1
72.5°	16158.9	13842.7	14302.0	14246.2	15280.9	19976.0	19162.5	15685.1
75°	11449.4	9385.7	9443.4	9420.8	10662.9	15628.7	13875.9	10731.2
77.5°	8010.8	6800.1	6831.4	6959.2	7168.6	11787.2	9913.4	7839.1
80°	5508.5	5160.7	5332.4	5343.0	4968.3	7918.1	7324.0	6291.2
82.5°	4102.9	3587.1	3545.7	3605.9	3893.5	6415.3	5628.2	4363.6
85°	3359.6	2123.8	1707.7	2140.7	3450.5	6353.3	3738.8	2301.8
87.5°	1891.9	1008.3	455.6	844.8	1376.8	4206.3	1080.4	293.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)